



Smart City Initiative in Kowloon East

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Background

Transforming Kowloon East into CBD2



Background Government Policy Initiatives

2015 Policy Address

“The latest Digital 21 Strategy envisions that the Government will make wider use of sensors, the Internet of Things and big data analytics for better public services and sustainable social and economic growth.”

“.....to set up an Innovation and Technology Bureau.....”

“We intend to use Kowloon East as a pilot area to explore the feasibility of developing a Smart City.”

“.....injecting \$5 billion into the ITF and subsuming the Research and Development Cash Rebate Scheme under the Fund.”

2015/16 Budget Speech

“.....free online government information will be released in digital formats to encourage development of more applications by start-ups.”

Energising Kowloon East – Conceptual Master Plan 4.0

CBD² 4.0

活力創舉九龍東
CONNECTIVITY | BRANDING
DESIGN | DIVERSITY
IN KOWLOON EAST

a place for you...

「易行」九龍東
"Walkable"
Kowloon East

綠色核心商業區
Green CBD

飛躍啟德 · 健康啟德
Kai Tak Fantasy
Healthy Lifeline

啟明城市
Smart City

創設精神
The Spirit
of Creation

創設精神
THE SPIRIT OF
CREATION
創造神
創造神

走啟德新
Kowloon East
入出街

CONNECTIVITY | BRANDING
DESIGN | DIVERSITY

「您」想地方...

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CBD² 4.0

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IN KOWLOON EAST

「您」想地方...

香港首個一體化啟德區 (Hong Kong's CBD)

1 宜商宜業
The Business and Industry Hub

2 宜居住
Community in Residential

3 宜康樂
Community in Active Life

4 宜康樂
Community in Smart Living

5 宜康樂
Community in Smart Living

6 宜康樂
Community in Smart Living

7 宜康樂
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10 宜康樂
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Boyd Cohen: the Smart City Wheel



Re-designed by Manuchis.

A “Smart City” is often perceived as a city using digital/Information & Communications technologies (ICT) to enhance performance of the city and the wellbeing of the citizens. Yet, the concept is much wider...

Smart Economy - High productivity, entrepreneurship and ability to transform

Smart Mobility - Strong ICT infrastructure and sustainable transport systems

Smart Environment - Sustainable and integrated resource management, pollution prevention and environmental protection

Smart People - Diversity, creativity and participation in public life

Smart Living - Cultural facilities, housing quality, health and safety issues

Smart Governance - Political strategies and perspectives, transparency and community participation in decision-making

WHERE to start.....

Can we do more on Smart Mobility?

Traffic in Kowloon East PAST



行人路需求日益增長
Increasing Pedestrian Flows



行人路狹窄擠迫
Congested Pedestrian Pavements



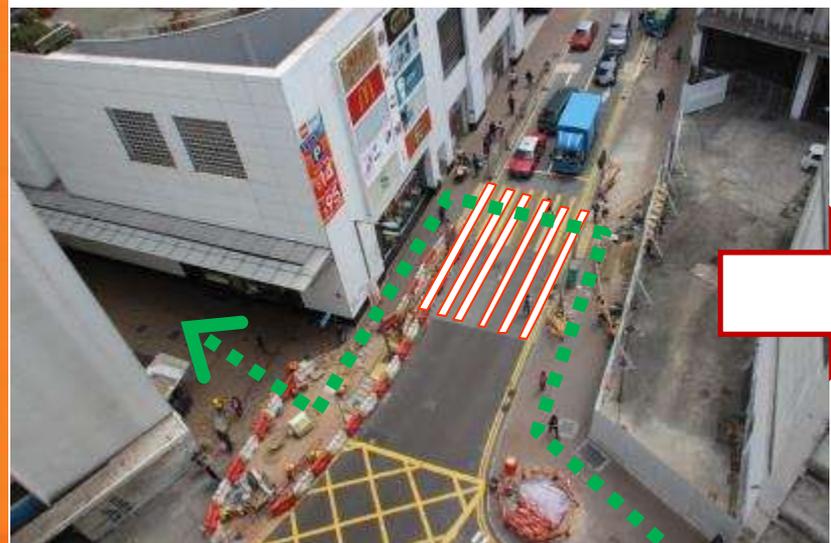
人車爭路情況普遍
Common Pedestrian and Vehicular Conflicts

Traffic in Kowloon East PAST



Traffic in Kowloon East PRESENT

Completed 30 short-term traffic improvement works



Traffic in Kowloon East PRESENT



Reduce unnecessary car journeys and time

Empower non-motorized travellers with mobility

Facilitate multi-modal trips



➤ Hong Kong eRouting website and mobile application

➤ Intelligent Road Network for sale for developing intelligent transport application

➤ Other intelligent transport system includes: Journey Time Indication System, CCTV, Traffic Control and Surveillance System



➤ Hong Kong eTransport website and mobile application used by about 18,000 people a day

➤ Hong Kong eTransport Kiosks set up at various locations



Images from Transport Department

Smart Traffic Management



- Real-time monitoring of traffic conditions and parking availability



- Dissemination of real-time parking, loading/ unloading information via mobile applications

*Image from Transport Department



Image from Civil Engineering and Development Department

Green Transport Modes



Image from CLP Power Hong Kong Ltd



Image from West Kowloon Cultural District Authority

Real-time Bus Scheduling



Image from The Moscow Times



How about Smart Environment?

Environment

PAST and PRESENT



Face-lift Public Space

Before

After

Before

After



Environment

PAST and PRESENT

Face-lift Public Space



Environment

PAST and PRESENT



Before

After

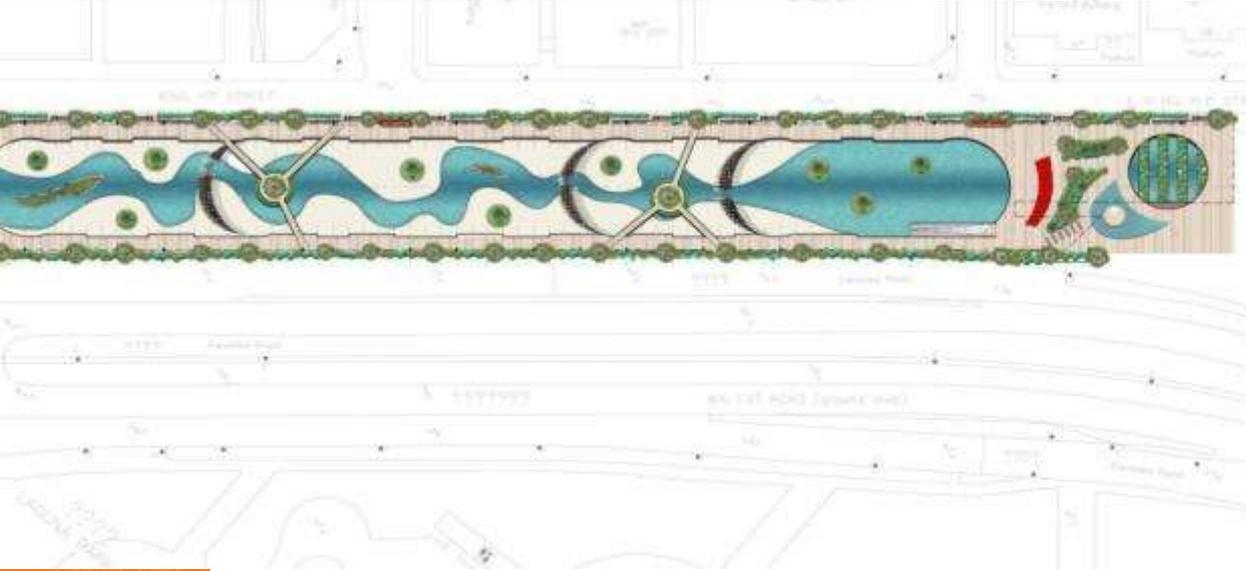
Environment

Kwun Tong Promenade



Environment

Tsui Ping River Garden



Green Infrastructures

Resource and Energy Efficient

Total Water Management

Smart Waste Management

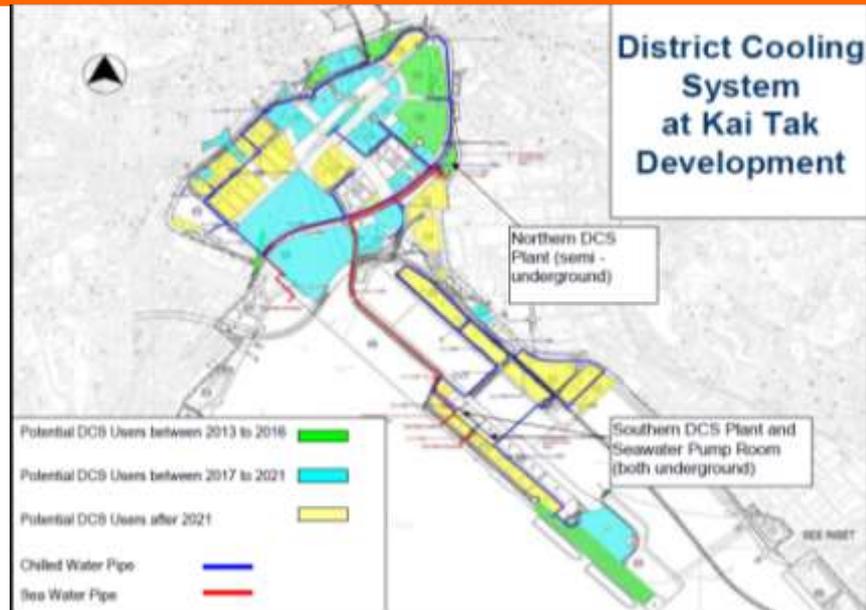


Image from Civil Engineering and Development Department

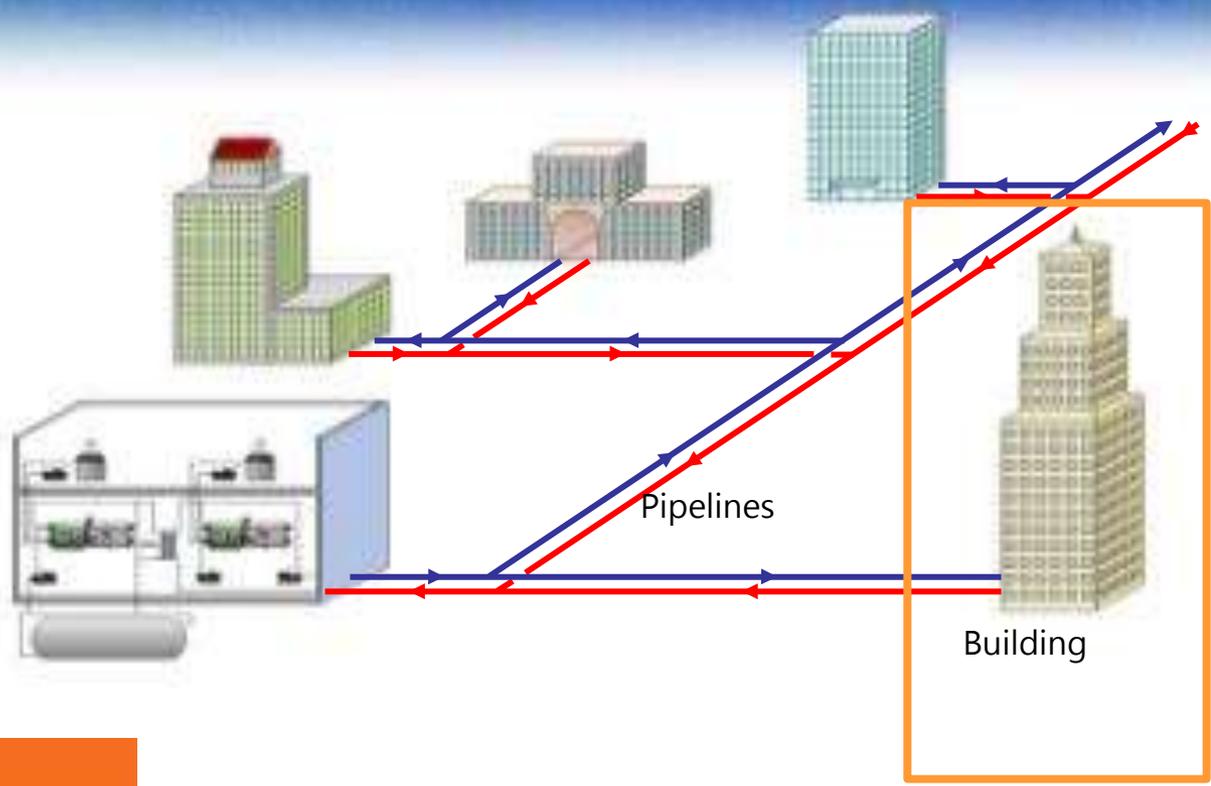


Image from Ove Arup & Partners Hong Kong Ltd



Image from ONZO Ltd

District Cooling System
(for chilled water production)



Seawater Pumphouse and Chiller Plant at Kai Tak Development



Chiller plant at Kai Tak Development

Private Development Sites in KE

- At least BEAM Plus Provisional **Gold** Rating

Private Development Sites in KBBA and KTBA

- **Higher Greening Ratio** (10% in addition to PNAP APP-152)

Notes:

- New government buildings/public housing : at least Gold rating
- KTD : higher greening ratio already agreed by CPLD in May 2011

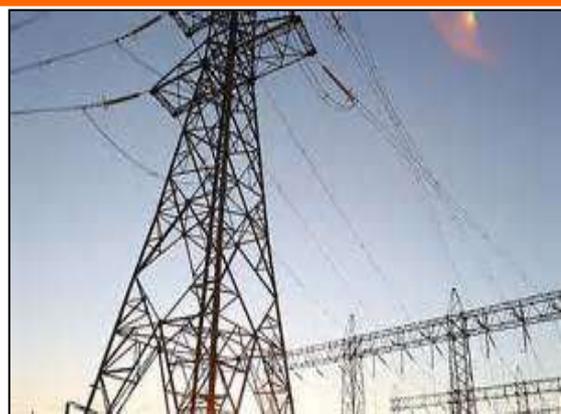


Smart City

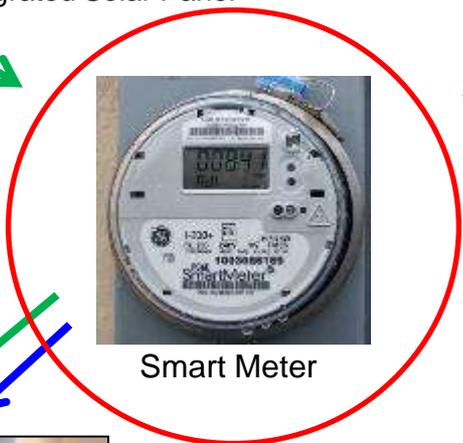
Renewable Energies and Smart Grid



Building Roof and Facade Integrated Solar Panel



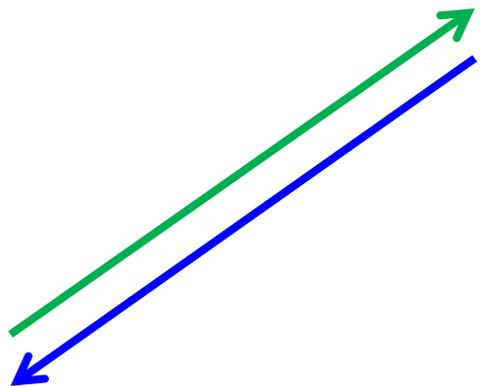
City Power Grid



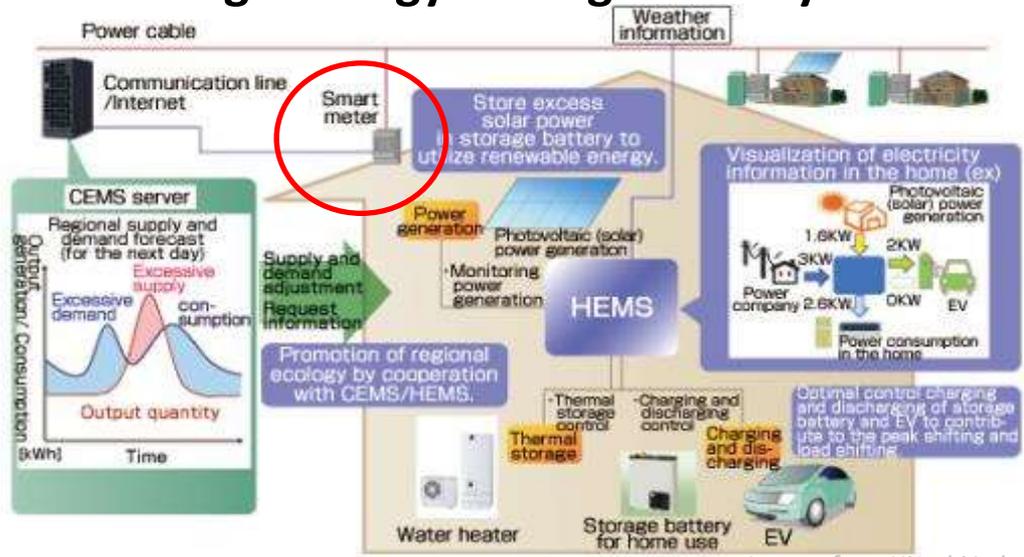
Smart Meter



Household



Building's Energy Management System



- **Benefits:** can save energy and improve supply network efficiency
 - CLP Smart-meter programme on trial basis
 - Residential (to facilitate behavioural change)
 - Commercial (with prior agreement, demand-response control in some hotel sites to cut demand during peak periods)
 - ➔ CLP receptive to extending trial to Kowloon East
- Implementation subject to CLP's proposal and Government's assessment of feasibility and tariff implication.

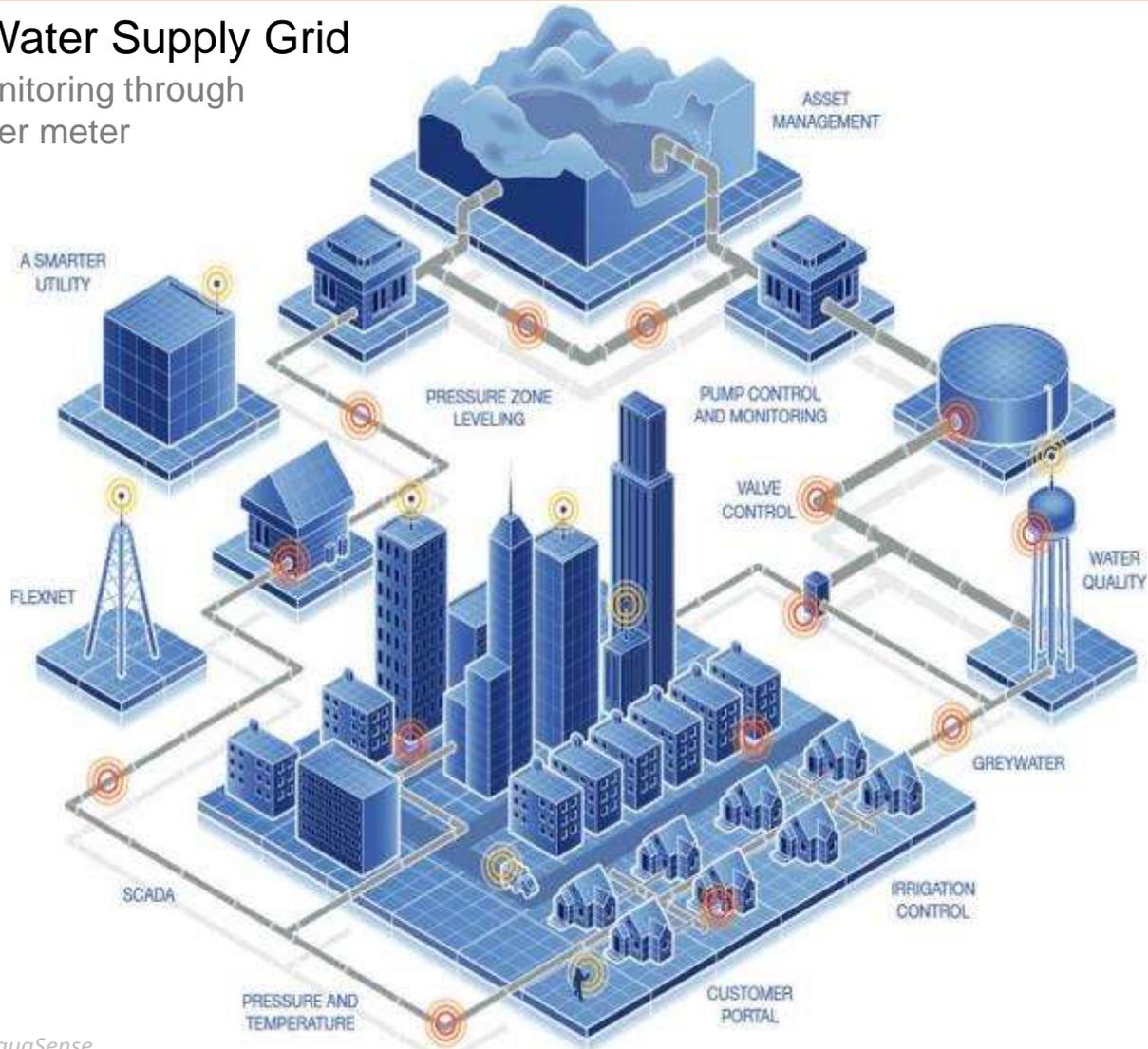


Images from CLP Power Hong Kong Ltd

Smart City Total Water Management

Smart Water Supply Grid

Smart monitoring through smart water meter

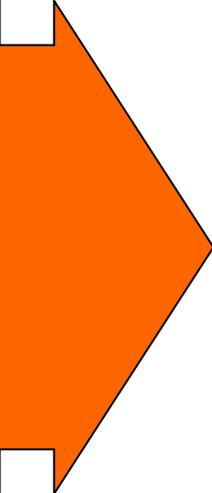
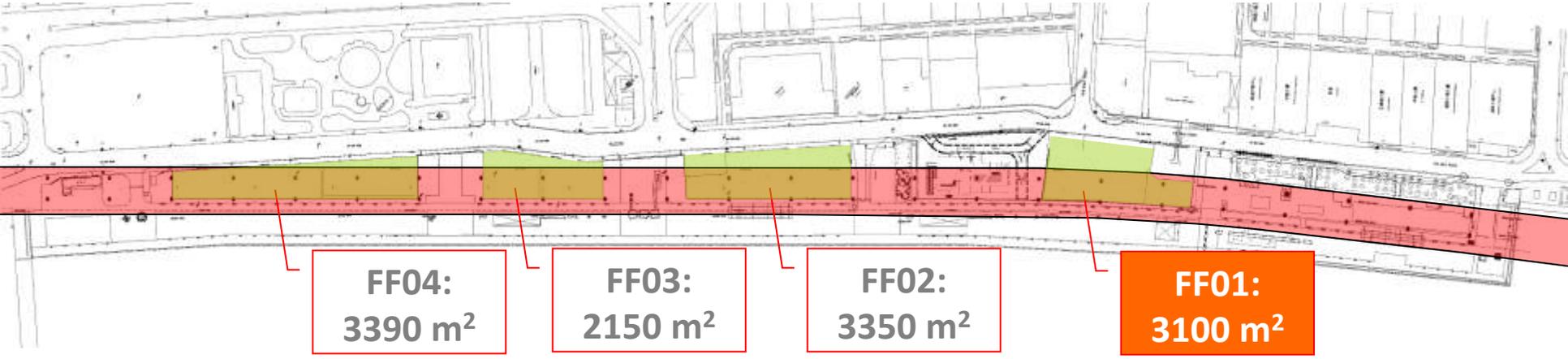


Images from AquaSense

- **Benefits:** can save water and detect leakage of water pipes
- WSD Automatic Meter Reading (ARM) pilot scheme
 - selected government quarters and housing estates of Un Chau Estate and Cheung Lung Wai Estate
- Proposed extension of these applications to all private development sites in KE



SMART People



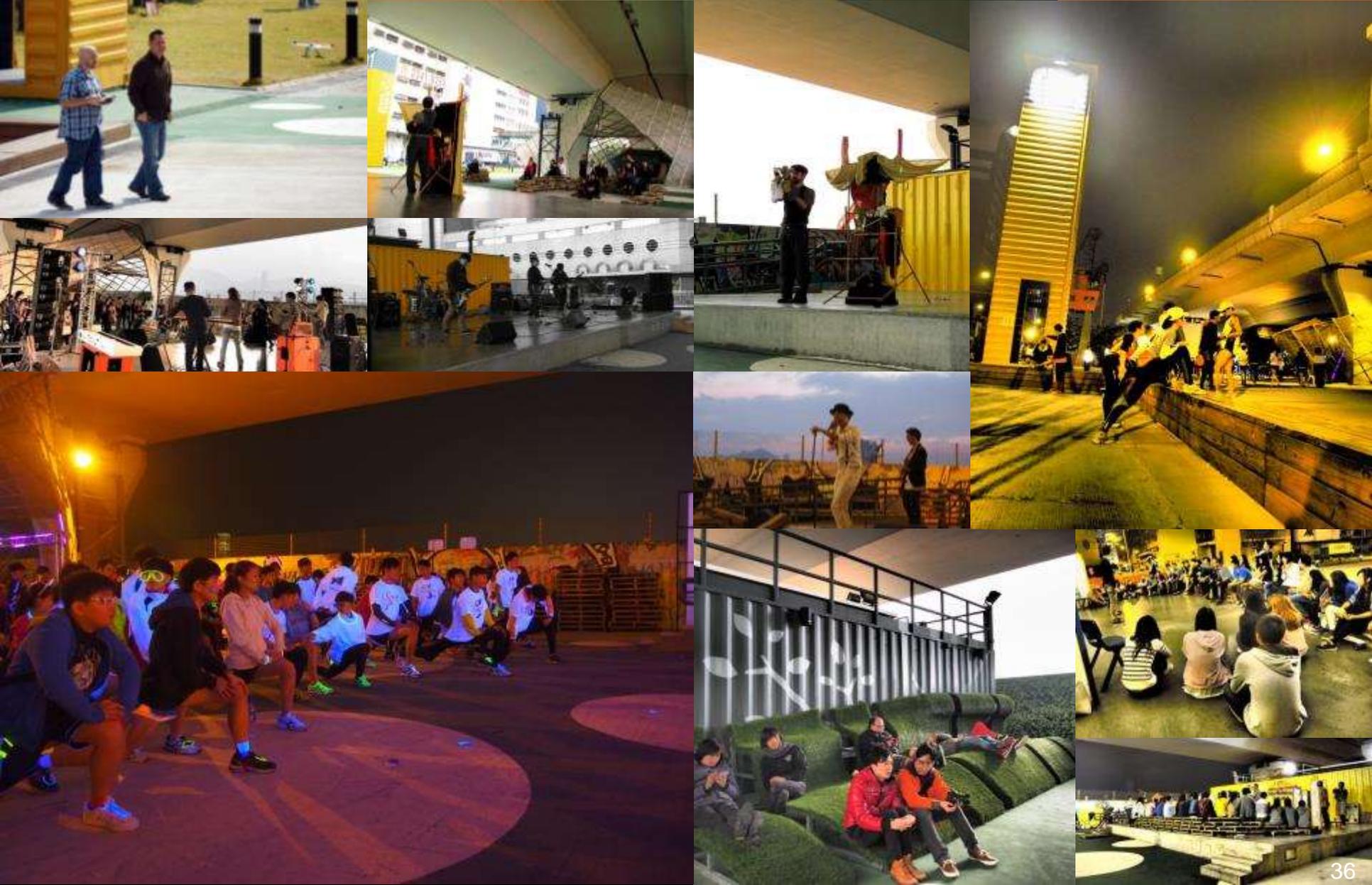
Smart People

Fly the Flyover 01



Smart People

Fly the Flyover 01



Smart People

Fly the Flyover 01



Back Alleys



BACK ALLEY PROJECT @KOWLOON EAST

Names of Back Alleys
(Chinese only)

- | | |
|--------|--------|
| A: 字粒里 | J: 電路里 |
| B: 工模巷 | K: 車邊里 |
| C: 鳳眼里 | L: 珠仔里 |
| D: 乳固里 | M: 乳酸里 |
| E: 碎冰里 | N: 荷蘭里 |
| F: 船渡巷 | O: 啤工里 |
| G: 打版里 | P: 小麥里 |
| H: 刷塗里 | Q: 鎖邊里 |
| I: 花紗里 | R: 扳手里 |



G. 打版里



B. 工模巷



M. 乳酸里



E. 碎冰里



Q. 鎖邊里



J. 電路里



E. 碎冰里



E. 碎冰里

Smart People

BackStreet Run Project



Smart People

Mega Events



Wireless City

Open Data / Public Sector Information

Data Sharing

Common Data Platform



- Study underway to consolidate Government's **GIS platforms** as one for new development areas



- **FREE** wireless Internet access services at designated government premises (around **520** now)



- Data.one – Over **70 types** of datasets provided by **25 data providers** in **18 different categories**

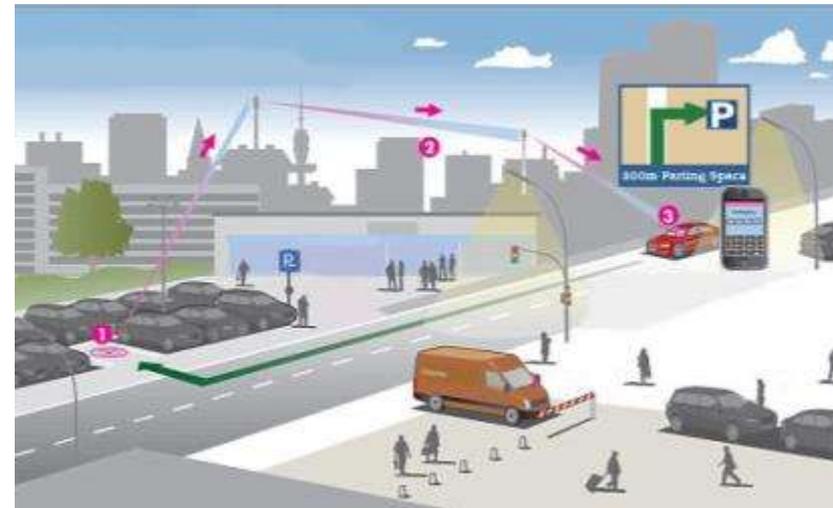


Facilitate Informed Decisions

City Resilience

Asset Management

Do More with Less



- Wider RFID Application on way finding apps or informatics



- Open data to facilitate wider application of public sector information



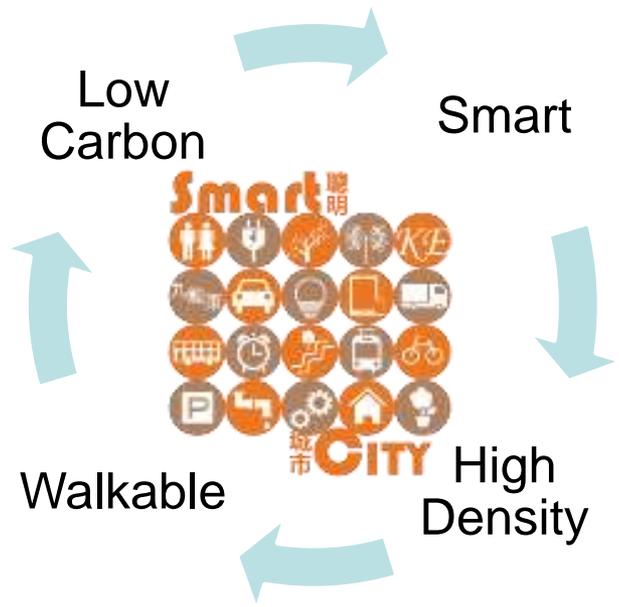
Images from Lands Department

SUSTAINABLE Model



Smart City

A Sustainable and Liveable Model



Engagement, Collaboration and Partnership

Thank You !

